

IN THE ABSTRACT:

Please append the attached abstract as page 81 to the end of the specification.

IN THE CLAIMS:

Please cancel Claims 41-42.

Please amend the remaining claims as follows:

A 2
1. (Amended) A method of repressing, delaying or otherwise reducing the expression of a target gene in an animal cell, tissue or organ, said method comprising:

introducing to said animal cell, tissue or organ one or more dispersed or foreign nucleic acid molecules **[or foreign nucleic acid molecules]** comprising: tandem copies of a nucleotide sequence **[which is substantially]** identical to or complementary to the nucleotide sequence of said target gene or a region thereof **[or complementary thereto]**, wherein said nucleic acid molecule is introduced for a time and under conditions sufficient for translation of the mRNA product of said target gene to be modified, subject to the proviso that the transcription of said mRNA product is not exclusively repressed or reduced.

2. (Amended) The method according to claim 1 wherein **[the dispersed nucleic acid molecules or foreign nucleic acid molecules]** said tandem copies comprise inverted repeats of the target gene sequence or a region thereof or complementary thereto.

3. (Amended) The method according to claim 1 wherein **[the dispersed nucleic acid molecules or foreign nucleic acid molecules]** said tandem copies comprise direct repeats of the target gene sequence or a region thereof or complementary thereto.

4. (Amended) The method according to claim 1 wherein **[the dispersed nucleic acid molecules or foreign nucleic acid molecules]** said tandem copies comprise both direct and inverted repeats of the target gene sequence or a region thereof or complementary thereto.

5. (Amended) The method according to **[any one of claims 1 to 4]** claim 1, wherein the number of tandem copies **[of the target gene sequence or region thereof or complementary thereto in the dispersed nucleic acid molecule or foreign nucleic acid molecule]** is two.

6. (Amended) The method according to **[any one of claims 1 to 4]** claim 1, wherein the number of tandem copies **[of the target gene sequence or region thereof or complementary thereto in the dispersed nucleic acid molecule or foreign nucleic acid molecule]** is three.

7. (Amended) The method according to [any one of claims 1 to 4]claim 1, wherein the number of tandem copies [of the target gene sequence or region thereof or complementary thereto in the dispersed nucleic acid molecule or foreign nucleic acid molecule] is four.

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8. (Amended) The method according to [any one of claims 1 to 4]claim 1, wherein the number of tandem copies [of the target gene sequence or region thereof or complementary thereto in the dispersed nucleic acid molecule or foreign nucleic acid molecule] is six.

9. (Amended) The method according to [any one of claims 1 to 4]claim 1, wherein the number of tandem copies [of the target gene sequence or region thereof or complementary thereto in the dispersed nucleic acid molecule or foreign nucleic acid molecule] is ten.

10. (Amended) The method according to [any one of claims one to 9]claim 1 wherein [the disposed nucleic acid molecule or foreign nucleic acid molecule comprises tandem repeats of the target gene sequence and wherein] one or more of the repeated units of said tandem repeats is separated from another unit by a nucleic acid-containing stuffer fragment.

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12. (Amended) The method according to [any one of claims 1 to 11]claim 1, wherein the target gene is a gene which is contained within the genome of the animal cell, tissue or organ.

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14. (Amended) The method according to [any one of claims 1 to 13]claim 1, wherein the target gene is derived from the genome of a pathogen of the animal cell, tissue or organ or an organism comprising said cell, tissue or organ.

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17. (Amended) The method according to [any one of claims 1 to 16]claim 1 further comprising selecting the dispersed or foreign nucleic acid molecule(s) [or foreign nucleic acid molecule(s)] according to their ability to effectively [modulate]repress, delay or reduce expression of the target gene.

18. (Amended) A method of repressing, delaying or otherwise reducing the expression of a target gene in an animal cell, tissue or organ, said method comprising:

[(i)] selecting one or more dispersed or foreign nucleic acid molecules [or foreign nucleic acid molecules which comprise]comprising: tandem repeats of a nucleotide sequence which is substantially identical to or complementary to the

nucleotide sequence of said target gene or a region thereof **[or which is complementary thereto]**;

[(ii)] producing a synthetic gene comprising said dispersed or foreign nucleic acid molecules **[or foreign nucleic acid molecules]** operably **[connected]**linked to a promoter sequence **[operable in said animal cell, tissue or organ]**;

[(iii)] introducing said synthetic gene to said cell, tissue or organ; and

[(iv)] expressing said synthetic gene in said cell, tissue or organ for a time and under conditions sufficient for translation of the mRNA product of said target gene to be modified, subject to the proviso that the transcription of said mRNA product is not exclusively repressed or reduced.

19. **(Amended)** A method of conferring resistance or immunity to a viral pathogen upon an animal cell, tissue, organ or whole organism, comprising:

introducing one or more dispersed or foreign nucleic acid molecules **[or foreign nucleic acid molecules which comprise]**comprising tandem repeats of a nucleotide sequence derived from the viral pathogen or a complementary sequence thereto for a time and under conditions sufficient for translation of the mRNA product of a virus gene to be delayed or otherwise reduced, subject to the proviso that the transcription of said mRNA product is not exclusively repressed or reduced.

22. **(Amended)** The method according to **[any one of claims 19-21]**claim 19, further comprising selecting the dispersed or foreign nucleic acid molecule(s) **[or foreign nucleic acid molecule(s)]** according to their ability to confer resistance or immunity on the animal cell, tissue, organ or organism.

23. **(Amended)** A method of conferring resistance or immunity to a viral pathogen upon an animal cell, tissue, organ or whole organism, comprising:

[(i)] selecting one or more dispersed or foreign nucleic acid molecules **[or foreign nucleic acid molecules which comprise]**comprising tandem repeats of a nucleotide sequence derived from the viral pathogen or a complementary sequence thereto;

[(ii)] producing a synthetic gene comprising said dispersed or foreign nucleic acid molecules **[or foreign nucleic acid molecules]** operably **[connected]**linked to a promoter sequence **[operable in said cell, tissue, organ or whole organism]**;

[(iii)] introducing said synthetic gene to said cell, tissue, organ or whole organism; and

[(iv)] expressing said synthetic gene in said cell, tissue or organ for a time and under conditions sufficient for translation of the mRNA product of a gene of the virus to be modified, subject to the proviso that the transcription of said mRNA product is not exclusively repressed or reduced.

24. (Amended) The method according to **[any one of claims 19-23]**claim 19, wherein the dispersed or foreign nucleic acid molecules **[or foreign nucleic acid molecules]** comprise tandem copies of nucleotide sequence encoding a viral protein selected form the group consisting of: a replicase, a polymerase, a coat protein [or] and an uncoating gene.

25. (Amended) The method according to claim 24, wherein the **[dispersed nucleic acid molecules or foreign nucleic acid molecules comprise tandem copies of nucleotide sequence encoding]**viral protein is a viral polymerase.

26. (Amended) The method according to claim 25, wherein the **[dispersed nucleic acid molecules or foreign nucleic acid molecules comprise tandem copies of nucleotide sequence encoding]**viral protein is a viral coat protein.

27. (Amended) A synthetic gene **[when used in accordance with the method of claim 1 to repress, delay or otherwise reduce the expression of a target gene in an animal cell, tissue, organ or whole organism, wherein said synthetic gene comprises]**comprising: a dispersed or foreign nucleic acid molecule **[or a foreign nucleic acid molecule]** comprising tandem copies of a nucleotide sequence which is substantially identical to the nucleotide sequence of said target gene or a derivative thereof or a complementary sequence thereto placed operably under the control of a promoter sequence **[which is operable in said animal cell, tissue, organ or whole organism]**.

28. (Amended) The synthetic gene according to claim 27, wherein the dispersed or foreign nucleic acid molecule **[or a foreign nucleic acid molecule]** comprises tandem inverted and/or direct repeats of a genetic sequence that is endogenous to the genome of the animal cell, tissue, organ or organism or which is derived from a non-endogenous gene of the animal cell, tissue, organ or organism.

29. (Amended) The synthetic gene according to claim 28, wherein the non-endogenous gene is **[derived]** from a viral pathogen of the animal cell, tissue, organ or organism.

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30. (Amended) The synthetic gene according to claim 29, wherein the non-endogenous gene is **[derived]** from an animal virus.

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32. (Amended) The synthetic gene according to claim 30, wherein the non-endogenous gene is **[derived from]** the BEV polymerase gene.

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34. (Amended) The synthetic gene according to **[claims 27 or 28]**claim 27 wherein the dispersed or foreign nucleic acid molecule **[or a foreign nucleic acid molecule]** comprises tandem inverted and/or direct repeats of the porcine α -1,3-galactosyltransferase gene.

35. (Amended) The synthetic gene according to claim 24, wherein the porcine α -1,3-galactosyltransferase gene is **[placed]** operably **[in connection with]**linked to the CMV promoter sequence.

36. (Amended) The synthetic gene according to **[any one of claims 27-35]**claim 27, wherein the tandem copies of the nucleotide sequence of the target gene are operably **[connected]**linked to two or more promoter sequences.

37. (Amended) The synthetic gene according to claim 36, wherein each of the tandem copies of the nucleotide sequence of the target gene are operably **[connected]**linked to spatially separate promoter sequences.

38. (Amended) A genetic construct comprising the synthetic gene according to **[any one of claims 27-37]**claim 27.

39. (Amended) The genetic construct according to claim 38 selected from the **[list comprising]**group consisting of: plasmid pCMV.BEVx2; plasmid pCMV.BEV.GFP.VEB; plasmid pCMV.BEV.SV40L.BEV; and plasmid pCMV.BEV.SV40L.VEB.

40. (Amended) The genetic construct according to claim 38 **[selected from]**comprising plasmid pCMV.Galtx2; and pCMV.Galtx4.

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43. (Amended) An animal cell, tissue, organ or whole organism comprising the synthetic gene according to **[any one of the claims 27-37 or the genetic construct according to any one of claims 38-40]**claim 27.

Please add the following Claims:

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44. The method according to claim 19, wherein the dispersed or foreign nucleic acid molecules comprise tandem copies of nucleotide sequence encoding a viral protein selected from the group consisting of: a replicase, a polymerase, a coat protein and an uncoating gene.

45. The method according to claim 24, wherein the viral protein is a viral polymerase.